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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/654,508

09/03/2003

Geert Deroover

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EXAMINER

JOHNSON, CONNIE P

ART UNIT

PAPER NUMBER

1752

MAIL DATE

DELIVERY MODE

06/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/654,508	Applicant(s) DEROOVER ET AL.	
	Examiner Connie P. Johnson	Art Unit 1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/14/2007 has been entered.
2. Claims 1-10 are presented.
3. Claims 1 and 10 are amended.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable by Gaschler et al., U.S. Patent No. 6,238,838 B1.

Gaschler teaches a positive-working, radiation sensitive mixture which contains a hydrophilic organic polymeric binder, a coating, which is soluble in an aqueous alkaline developer and an infrared light absorbing compound (column 1, lines 9-15, 47-56). The IR compound in column 4 (Formula F5) is a cationic IR-absorbing dye and meets the

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limitations of instant claim 1. Gaschler also teaches that Z^1 and Z^2 of the infrared compound are preferably isopropylidene groups ($-C(CH_3)_2-$) as in instant claim 7 (column 3, lines 12-13). Gaschler does not specifically teach three to five sulfo, hydroxyl and carboxyl groups as R^1 , R^2 , R^4 and R^5 as claimed. However, it would have been obvious to one of ordinary skill in the art to substitute the solubilizing groups to form a more soluble infrared absorbing dye because Gaschler teaches in his compound, the substituents R^1 - R^8 may include 2 to 4 sulfonate, carboxylate or phosphonate groups. All of these groups represent G^1 . Therefore it has been contemplated by the reference to use 3 or more solubilizing groups (see col. 2, lines 57-60 and claims 1 and 14 in Gaschler).

6. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaschler et al., U.S. Patent No. 6,492,093.

Gaschler teaches recording materials comprising a substrate and a mixture with a binder layer and a positive-working IR-sensitive dye layer (column 8, lines 1-30). The IR-sensitive dyes may comprise cyanine dyes. The substrate comprises an aluminum surface that has been hydrophilized (column 8, lines 55-61). The oleophilic IR-sensitive dye layer is above the binder layer and is soluble in alkaline developer solution (column 8, lines 5-6). Examples of suitable IR-sensitive dyes include: column 4, Formula (III), column 5, Formula (IV) and column 6, Formulas (F1-F4). The substituted groups of each formula meet the limitations of instant claims 1. The solubilizing groups attached to the cyanine dyes include such anionic groups as carboxylate, sulfonate and phosphonate groups (column 4, lines 14-16). These groups are identified in the

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specification as solubilizing groups (page 5, lines 1-5). With regards to formulas III and IV of the reference, solubilizing groups include carboxyl and sulfo groups as in instant claim 10 (column 5, line 35). The polymeric binder in the binder layer contains acidic groups with pK_a of less than 13. This ensures that the layer is soluble in aqueous alkaline developers (column 7, lines 1-5). Gaschler does not specifically teach substituting three to five carboxy, sulfo and phosphonate groups as the solubilizing groups for R^1 to R^8 . However, it would have been obvious to one of ordinary skill in the art to substitute three to five carboxy, sulfo and phosphonates as solubilizing groups because Gaschler teaches in his compound, substituting up to five anionic solubilizing groups of carboxy, sulfo and phosphonates (col. 4, lines 14-19 and claim 1 of Gaschler). All of these groups represent G^1 . Therefore it has been contemplated by Gaschler ('093) to substitute 3 or more solubilizing groups in the infrared absorbing dye.

Response to Arguments

7. Applicant's arguments filed 3/14/2007 have been fully considered but they are not persuasive.

8. Applicant argues that Gaschler ('838) does not teach an infrared absorbing compound with solubilizing groups as in instant claim 1.

Gaschler teaches the infrared absorbing compounds with the solubilizing groups. Based on the amendment to claim 1, a new 103 rejection has been entered with Gaschler ('838) to reject claims 1, 7 and 9.

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9. Applicant argues that Gashler ('093) does not teach an infrared absorbing compound with three, four or five solubilizing groups (G^1 and G^2).

Gashler teaches infrared absorbing compounds that meet the limitations of instant claim 1 (see columns 5 and 6, structures F1, F2, F3 and F4). However, based on the amendment to claim 1, a new 103 rejection has been entered with Gaschler ('093) to reject claims 1-10.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Connie P. Johnson whose telephone number is 571-272-7758. The examiner can normally be reached on 7:30am-4:00pm Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Connie P. Johnson
Examiner
Art Unit 1752

CYNTHIA K. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700
